

From the INTERNATIONAL BUREAU

PCTNOTIFICATION CONCERNING
TRANSMITTAL OF COPY OF INTERNATIONAL
PRELIMINARY REPORT ON PATENTABILITY
(CHAPTER I OF THE PATENT COOPERATION
TREATY)

(PCT Rule 44bis.1(c))

To:

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Date of mailing (<i>day/month/year</i>) 12 April 2007 (12.04.2007)		
Applicant's or agent's file reference QN1136.PCT		IMPORTANT NOTICE
International application No. PCT/US2005/035064	International filing date (<i>day/month/year</i>) 27 September 2005 (27.09.2005)	
		Priority date (<i>day/month/year</i>) 01 October 2004 (01.10.2004)
Applicant QLOGIC CORPORATION		

The International Bureau transmits herewith a copy of the international preliminary report on patentability (Chapter I of the Patent Cooperation Treaty)

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PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference QN1136.PCT	FOR FURTHER ACTION		See item 4 below
International application No. PCT/US2005/035064	International filing date (<i>day/month/year</i>) 27 September 2005 (27.09.2005)	Priority date (<i>day/month/year</i>) 01 October 2004 (01.10.2004)	
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237			
Applicant QLOGIC CORPORATION			

1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).

2. This REPORT consists of a total of 8 sheets, including this cover sheet.

In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.

3. This report contains indications relating to the following items:

- | | |
|---|---|
| <input checked="" type="checkbox"/> Box No. I | Basis of the report |
| <input type="checkbox"/> Box No. II | Priority |
| <input type="checkbox"/> Box No. III | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability |
| <input type="checkbox"/> Box No. IV | Lack of unity of invention |
| <input checked="" type="checkbox"/> Box No. V | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/> Box No. VI | Certain documents cited |
| <input checked="" type="checkbox"/> Box No. VII | Certain defects in the international application |
| <input type="checkbox"/> Box No. VIII | Certain observations on the international application |

4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis.2).

Date of issuance of this report
03 April 2007 (03.04.2007)

Authorized officer

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PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

REC'D 11 JAN 2006

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To:

see form PCT/ISA/220

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WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing

(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION

See paragraph 2 below

International application No.
PCT/US2005/035064

International filing date (day/month/year)
27.09.2005

Priority date (day/month/year)
01.10.2004

International Patent Classification (IPC) or both national classification and IPC
H04L12/56

Applicant
QLOGIC CORPORATION

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☒ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/US2005/035064

Box No. 1 Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
 - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material:
 - ☐ in written format
 - ☐ in computer readable form
 - c. time of filing/furnishing:
 - ☐ contained in the international application as filed.
 - ☐ filed together with the international application in computer readable form.
 - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/US2005/035064

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	
	No: Claims	1-12
Inventive step (IS)	Yes: Claims	
	No: Claims	1-12
Industrial applicability (IA)	Yes: Claims	1-12
	No: Claims	

2. Citations and explanations

see separate sheet

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

see separate sheet

Following documents are referenced to:

D1: US-B1-6 343 324 (HUBIS WALTER A ET AL) 29 January 2002 (2002-01-29)

D2: US 2003/236953 A1 (GRIEFF THOMAS ET AL) 25 December 2003 (2003-12-25)

A. Citations and explanations with respect to Item V

0. Preliminaries

0.1 The term "credit extender" does not possess a well recognized meaning in the field of storage area networks (SANs). The "credit extender" as defined in claims 1, 5, and 9 and in the description is defined to be a controller of the host bus adapter which is responsible for the connection of the host bus adapter to the network (here a Fibre Channel network). The "credit extender" is therefore interpreted in this sense in the sequel of the examination procedure.

0.2 The use of the term "Fibre Channel" in claims 1, 5, and 9 refers to a standard. The use of trademarks and standards is only allowed in a claim if this feature does not represent an essential feature but merely defines an unessential feature used to further limit the scope of protection of the respective claims. Since, if the reference to the standard would be essential for the invention, it may not be guaranteed that the product or the feature referred to is not modified while maintaining its name during the term of the International Application, thus rendering the scope of said claims unclear (Art 6 PCT). In the sequel of the examination procedure the reference to the "Fibre Channel" standard is regarded as defining an unessential feature which is not considered for the assertion of novelty (Art 33(2) PCT) and inventive step (Art 33(3) PCT).

1. Document D1 which is considered to represent the closest prior art discloses according to all features of claim 1 a

(a) storage area network (SAN)

(see D1, column 7, lines 22-30: "embodiment ... of host computers attach to one

- or more external storage device array controllers ... to implement a Storage Area Network (SAN)"*
- (b) comprising: a host bus adapter (HBA) operationally coupled with a credit extender
(see D1, column 6, lines 21-33: "array controller ... each device on the loop including each host by virtue of a Fibre Channel Host Bus Adapter": hence the host bus adapter possesses a controller, hence a credit extender in the sense of 0.1 above),
- (c) wherein the credit extender receives frames from a Fibre Channel network
(see D1, column 15, line 67 and column 16, lines 1-9: "The Fibre Channel I/O Processors send and receive data from host computers": hence the processors/controllers (thus the credit extender in the sense on 0.1 above) receives frames (data) from a Fibre Channel network)
- (d) and sends the received frames to the HBA based on buffer space available in the HBA
(see D1, column 15, lines 19-44: "If the request is an I/O command ... controller determines ... corresponding logical volume to which the command is addressed ... Controller then examines the Volume Permission Table ... If the Permission Indicator value is true, access ... is permitted ... If the value is false, access ... is not permitted ... indicating that storage space is not available": hence the controller of the HBA sends the frames to the SAN only in the case the storage space in the HBA is available, else access is denied and an indication is sent, stating that no storage space is available).

The subject matter of claim 1 is therefore not new (Art 33(2) PCT).

2. Claim 5 defines a system for transferring data in a Fibre Channel network consisting of features 1(b)-1(d) of claim 1. Since feature 1(a) of claim 1 (the SAN) defines also a type of system, the subject matter of claim 5 is included in the subject matter of claim 1. Therefore the subject matter of claim 5 is also not new (Art 33(2) PCT).
3. Claim 9 defines a host bus adapter as already defined and discussed in points 1(b)-1(d) above. The subject matter of claim 9 is therefore also not new (Art 33(2) PCT).

Remark: Since the bus adapter of claim 9 is included in the system of claim 5, claim 5 which uses the wording of an independent claim defines a dependent claim, being dependent on claim 9. Since the SAN of claim 1 is a special case of the system of claim 5, claim 1 which uses the wording of an independent claim defines a dependent claim, being dependent on claim 5, and, hence, also on claim 9.

4. Dependent claims 2-4, 6-8, and 10-12 do not appear to contain any additional features which, in combination with the features of any claim to which they refer, are novel for the reason that the subject matter of said claims is disclosed in document D1 (see in particular figures 1-3; column 2, lines 14-38; column 6, lines 3-33; column 7, lines 22-38; column 15, lines 19-67; column 16, lines 1-9; column 21, lines 24-42).

The subject matter of dependent claims 2-4, 6-8, and 10-12 therefore is not new, Art 33(2) PCT.

B. Explanations with respect to Item VII

1. The subject matter of claims 1, 5, and 9 is not clear (Art 6 PCT) since all three claims use the wording of independent claims although (see the Remark above) only claim 9 defines an independent claim whereas claims 1 and 5 are defining dependent claims. In order to comply to Art 6 PCT claims 1 and 5 should be reformulated using a reference to claim 9 in order to explicitly indicate their dependence on claim 9.
2. Claims 1 and 5 are not clear (Art 6 PCT) since the abbreviation HBA is not defined in said claims. Therefore the term HBA should be defined as host bus adapter in said claims.
3. The applicant's attention is drawn to the following matters, which should as well be considered:
 - 3.1 To meet the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in documents D1 and D2 should be acknowledged in the description.
 - 3.2 The opening part of the description should be brought into conformity with the

wording of any new or amended independent claim, Rule 5.1(a)(iii) PCT.

- 3.3 To meet the requirements of Rule 6.3(b) PCT, any independent claim should be correctly cast in the two-part form, with those features which in combination are part of the nearest prior art being placed in the preamble.
- 3.4 Reference signs in parentheses should be inserted in all claims to increase their intelligibility, Rule 6.2(b) PCT. This applies both to the preamble and to the characterizing portion.
4. The attention of the applicant is drawn to the fact that the application may not be amended in such a way that it contains subject matter which extends beyond the content of the application as filed, Art 34(2)(b) PCT.

In his letter of reply, the applicant should indicate the parts of the originally filed application serving as a basis for subject matter newly introduced into the claims.

5. The applicant is requested to file amendments by way of replacement pages in accordance with Rule 66.8 PCT.